Amendments to the Abstract:

There are provided an X-ray detector which can realize a larger area without lowering resolution and reducing X-ray detective efficiency when obtaining a matrix construction having a large number of X-ray detecting elements by tiling and a system using the same.

——An X–ray detector 104-has a construction in which a plurality of photo–electric modules 111-having a plurality of X–ray detecting elements 110-located in a two–dimensional manner are pasted onto a distribution module—113. The X–ray detecting element 110-has scintillators—112, transparent means—121-members and photo–electric—means—114_members. These are optically connected to each other. On the edge of the transparent means—121-members on one of the photo–electric modules—111-mounted on the distribution module to be adjacent to each other is formed a cutaway part 120-so that the area of an output surface 211-outputting a light to the photo–electric means—114-members is smaller than that of an incident surface 210 upon which a light is incident from the scintillators—112. A space caused by the cutaway part 120-is located wiring between the photo–electric module 111-and the distribution module 113-or wiring between the photo–electric modules 111-adjacent to each other.